

## CLAIMS

What is claimed is:

1. An electronic module for use in a wireless modem system comprising:
  - a wireless modem having an enclosure;
  - a power inserter circuit contained within the modem enclosure;
  - a power source electrically connected to the modem and the power inserter circuit;
  - and
  - an output connector connected to the modem and the power inserter circuit;wherein the output connector connects to an external transverter and supplies electrical power and an electrical signal to the transverter.
2. The electronic module of Claim 1, wherein the power inserter circuit comprises:
  - an inductor connected to the power source; and
  - a capacitor connected to the output of the modem , the inductor, and the transverter;wherein the capacitor blocks DC power from entering the output of the modem and the inductor blocks IF energy from entering the power source.
3. The electronic module of Claim 1, wherein the power source is an AC-to-DC converter.
4. The electronic module of Claim 3, wherein the AC-to-DC converter is contained within the modem.
5. The electronic module of Claim 1, wherein the power source is a dual output voltage power supply.
6. The electronic module of Claim 1, further comprising:
  - a DC-to-DC converter contained within the modem enclosure and electrically connected to the power source and the modem;

4 wherein the DC-to-DC converter outputs a constant voltage to the modem regardless  
5 of a change in input voltage from the power source.

1 7. The electronic module of Claim 6, wherein the power source output voltage is set  
2 according to a transverter input voltage requirement.

1 8. A wireless modem system comprising:

2 a wireless modem having an enclosure;

3 a power inserter circuit contained within the modem enclosure;

4 a power source electrically connected to the modem and the power inserter circuit;

5 a DC-to-DC converter contained within the enclosure electrically connected to the  
6 power source and the modem;

7 an output connector connected to the modem and the power inserter circuit;

8 a transverter electrically connected to the output connector; and

9 an antenna connected to the transverter;

10 wherein the transverter receives DC power from the power inserter circuit along with an  
11 electrical signal from the modem, and the power inserter circuit isolates the modem

12 components from the DC power sent to the transverter and isolates the power source from the  
13 electrical signal sent to the transverter.

1 9. The system of Claim 8, wherein the DC-to-DC converter outputs a constant voltage to  
2 the modem regardless of a change in input voltage from the power source.

1 10. The system of Claim 9, wherein the power source output voltage is set according to a  
2 transverter input voltage requirement.